



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,764	10/06/2003	Warren Scott Fentress		1626
21587	7590	06/15/2005		
ALTMAN & MARTIN 6 BEACON ST, STE 600 BOSTON, MA 02108			EXAMINER SUHOL, DMITRY	
			ART UNIT 3725	PAPER NUMBER
DATE MAILED: 06/15/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/678,764	Applicant(s) FENTRESS, WARREN SCOTT	
	Examiner Dmitry Suhol	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 21-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 21 and 27, the limitation of (with respect to claim 21) "... each of said faces being a first color or a second color, said first color corresponding to said polarity and said second color corresponding to said second polarity" and (with respect to claim 27) "... said first face and said second face being a first color and said third face and said fourth face being a second color, whereby said first color corresponds to said first polarity and said second color corresponds to said second polarity" was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Although applicants teach the use of color with their invention the relationship between polarities and color as stated above is simply not taught in the original disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roane '479 in view of Obikubo '253, MacGraw '905 and Varner et al '794. Roane discloses a 3-D toy building block containing most of the elements of the claims including a polyhedron with faces (figures 1-5) as required by claim 21, each face having one magnetic region (figure 5, magnets 51-54) with a first or second polarity (col. 8, lines 11-29) as required by claim 21. Each magnetic region being centered in each respective face, as required by claim 22, is described in col. 8, lines 12-14.

Although Roane teaches that the side of the building blocks that face each other (sides with opposite polarity) may be color coded to identify them as being mutually attracted (cols. 12-13, lines 66+ and 1-6, respectively), the reference fails to teach each face being a first or second color where the first color corresponds to the first polarity while the second color corresponds to the second polarity as required by claim 21. However Obikubo discloses a set of 3-D building blocks which teach that it is known to identify magnetic polarities with different colors (col. 3, lines 21-28). Therefore it would have been obvious to one having ordinary skill in the art at the time of the claimed invention to utilize different colors representing the different polarities of the Roane

Art Unit: 3725

blocks for the purpose of providing an educational and attractive game, especially since the use of specific color configuration appears to be a pure design choice in that the applicants disclose no advantage or critical need for any specific type of color coding (page 11, line 9 and page 12, line 1-2) and it would appear that the invention would work equally well with same colors identifying opposite polarity sides or different colors identifying opposite polarity sides as long as they are identifiable in some way.

Regarding the limitation of the magnet being embedded, Roane clearly states that his magnet may be mounted in any appropriate manner (col. 8, lines 14-16). While, Obikubo discloses a set of toy building blocks which teach that it is known to mount a magnet to a block face by embedding it the associated face (figures 1 and 1a and col. 3, lines 3-7). Therefore it would have been obvious to mount the magnets of Roane with their respective faces by embedding them for the purpose of providing a durable connection between the face and magnet and especially since Roane clearly states that the magnets of her invention may be mounted in any appropriate manner (col. 8, lines 14-16).

Regarding the limitation of the magnet being a neodymium magnet as required by claim 21, Varner discloses that it is known to utilize neodymium type magnets in devices which have parts held together for the purpose of providing good depth of pull between the magnets so that a good magnetic bond is formed. Therefore it would have been obvious to utilize neodymium type magnets in the device of Roane so that the building blocks have a good magnetic bond between each other.

Claims 21-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Therrien '236 in view of Obikubo '253 and Varner et al '794. Therrien discloses a 3-D toy building block containing most of the elements of the claims including a polyhedron with faces (blocks 20 of figures 8-10) as required by claim 21, each face having one magnetic region (figure 7, magnets 30) with a first or second polarity (abstract and col. 4, lines 1-15, where it is clear that a single magnetic pole is directed from each face of the block) as required by claim 21. Each magnetic region being centered in each respective face, as required by claim 22, is shown in figure 7 and described in col. 3, lines 25-26. Magnets being embedded in each face as required by claim 21 is shown in figure 7 and described in col. 3, lines 49-51. The block being a platonic solid, as required by claim 24, is shown in figure 7 as cube 20.

Although Therrien teaches that the faces of his building blocks may have a color associated with each respective face (colored decal 70 described in col. 5, lines 45-47), the reference fails to teach each face being a first or second color where the first color corresponds to the first polarity while the second color corresponds to the second polarity as required by claim 21. However Obikubo discloses a set of 3-D building blocks which teach that it is known to identify magnetic polarities with different colors (col. 3, lines 21-28). Therefore it would have been obvious to one having ordinary skill in the art at the time of the claimed invention to utilize different colors representing the different polarities of the Therrien blocks for the purpose of providing an educational and attractive game, especially since the use of specific color configuration appears to be a

Art Unit: 3725

pure design choice in that the applicants disclose no advantage or critical need for any specific type of color coding (page 11, line 9 and page 12, line 1-2).

Regarding the limitation of the magnet being a neodymium magnet as required by claim 21, Varner discloses that it is known to utilize neodymium type magnets in devices which have parts held together for the purpose of providing good depth of pull between the magnets so that a good magnetic bond is formed. Therefore it would have been obvious to utilize neodymium type magnets in the device of Therrien so that the building blocks have a good magnetic bond between each other.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Therrien '236, Obikubo '253 and Varner et al '794, as stated above, and further in view of Zeischegg '360. Although Therrien, as modified by Obikubo and Varner, discloses all of the elements of the claims as stated above, and further including that the blocks of his invention can take on a variety of forms including virtually any geometrically regular shape (col. 2, lines 62-64), the reference fails to explicitly teach a block being a regular tetrahedron as required by claim 25. However, Zeischegg discloses a set of magnetic building blocks (figure 1 and col. 1, lines 59-61) which teach that it is known to manufacture such blocks in the shape of a regular tetrahedron (col. 3, lines 35-36). Therefore it would have been obvious to utilize a regular tetrahedron shape with the blocks of Therrien since Therrien clearly discloses that his blocks may take on virtually any regular geometric shape.

Art Unit: 3725

Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Therrien '236, Obikubo '253, Varner et al '794 and Zeischegg '360, as stated above, and further in view of MacGraw '905. Although Therrien, as modified by Obikubo, Varner and Zeischegg, discloses all of the elements of the claims as stated above, the reference fails to teach that a first and second faces having a first polarity and a third and fourth faces having a second polarity as required by claim 27. However, MacGraw discloses a set of magnetic building blocks in the shape of tetrahedrons which teach that it is known to manufacture such blocks a plurality of faces having alternating polarity (figure 2 and col. 3, lines 30-42). Therefore it would have been obvious to manufacture the blocks of Therrien with a first and second faces having a first polarity and a third and fourth faces having a second polarity for the purpose of being able to assemble any two building blocks together in a desired fashion.

Response to Arguments

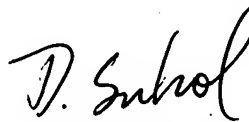
Applicant's arguments with respect to claims 21-22 and 24-27 have been considered but are moot in view of the new ground(s) of rejection. However it should be noted that the rejection of claims 21-27 stand since the original disclosure DOES NOT teach the relationship between polarities and color as stated above. The section cited in the specification by the applicants only disclose the use of color for the magnets, it does not give any relationship between the color(s) and polarities nor does it state that more than one color is utilized.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Suhol whose telephone number is 571-272-4430. The examiner can normally be reached on Mon - Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dmitry Suhol
Examiner
Art Unit 3725

ds